

REMARKS

Claims 51-55 and 59 are amended. Claims 60-61 are cancelled. New claims 63-71 are added. No new matter is added as the subject matter of the new claims is supported at, for example, pages 6-7 and Figs. 2 and 4 of the originally-filed application. Claims 51-59 and 62-71 are pending in the application.

Claims 51-54 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Ueno (U.S. Patent No. 5,895,939). Claims 51-54 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Batra et al. (U.S. 6,242,781) and in view of Wolf (Vol. 3). Claims 51-60 and 62 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Yen (U.S. Patent No. 5,965,924) in view of Wolf. Claims 51-54, 59-60 and 62 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Kawamura (U.S. Patent No. 5,278,082) in view of Wolf.

Claim 61 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Regarding the obviousness rejection against claims 51-54 based on Batra as a primary reference, the use of Batra as prior art is improper under 35 U.S.C. §103(c). Accordingly, the rejection is inappropriate and should be withdrawn. Batra and the above-referenced application, are commonly owned.

MPEP §706.02(I)(3) states that such commonly owned references are disqualified when:

(a) proper evidence is filed [referring to the statement of common ownership];

(b) the reference qualifies under 35 U.S.C. §102(e) for applications filed on or after November 29, 1999; and

(c) the reference is used in an obviousness rejection under 35 U.S.C. §103(a).

A separate statement establishing common ownership is filed herewith. The Batra reference qualifies as a §102(e) reference and is used in an obviousness rejection against claims 51-54. The above-referenced application was filed after the November 29, 1999 deadline. Accordingly, the requirements of MPEP §706.02(I)(3), and therefore §103(c), are met. Consequently, the obviousness rejection against claims 51-54 based on Batra is inappropriate and should be withdrawn. Applicant respectfully requests withdrawal of such rejection in the next office action.

Regarding the obviousness rejection against claim 51 based on the single reference Ueno, such claim recites a conductive line having a generally uniform lateral width. The Examiner correctly states that Ueno fails to teach or disclose a conductive line having a generally uniform lateral width and relies on case law to allege such limitation is obvious (Page 3 of Paper No. 14). First, the Examiner relies on *In re Dailey*, 357 F.2d 669, 149 USPQ 47 (CCPA 1966) to

state it would be obvious to form a conductive line having a generally uniform lateral width because it has been held that changing the shape of parts of an invention is generally recognized as being within the level of the ordinary skill of the art (this is a mis-characterization of the court's holding with a more accurate statement of the holding below).

The Examiner is respectfully reminded that when dealing with legal precedent as a source of supporting rationale, the MPEP clearly states that if the facts in a prior legal decision are **sufficiently similar** to those in the application in their examination, the examiner may use the rationale used by the court (emphasis added). MPEP §2144 and §2144.04 (8th Ed.). *In re Dailey* deals with a nursing bottle construction wherein the court stated it was not convinced that a particular configuration of the container was significant or anything more than numerous configurations a person of ordinary skill in the art would find obvious for the purpose of providing mating surfaces for a collapsible container. 149 USPQ at 50. In no fair or reasonable interpretation could the facts of *In re Dailey*, which deals with the construction of a nursing bottle, be possibly stated to be **sufficiently similar** to those of the present application under examination concerned with integrated circuitry in the semiconductor arts where structures routinely include dimensions on the nanometer level. The entire semiconductor industry strives to change the shapes of components by continually reducing their dimensions to produce faster functioning designs. That is, any change of shape of components in the semiconductor arts is routinely critical and could not

reasonably be argued to be a matter of an obvious change of shape. For this reason, the reliance on *In re Dailey* to suggest a limitation recited in claim 51 is allegedly obvious is inappropriate, and therefore, the obviousness rejection based on such case law fails.

Further regarding the deficiency of the teachings of Ueno to disclose a conductive line having a generally uniform lateral width as recited in claim 51, the Examiner relies on *In re Woodruff*, 919 F.2d 1575, 1578, 16 USPQ2d 1934, 1936 (Fed. Cir. 1990) to allege that it appears that these changes (allegedly referring to the limitation of claim 51 not disclosed) produce no functional difference, and therefore, would have been obvious (pg. 3 of paper no. 14). First, *In re Woodruff* deals with a method of preserving refrigerated fruits and vegetables. In no fair or reasonable interpretation could the facts of *In re Woodruff* dealing with preserving refrigerated fruits and vegetables be possibly stated to be **sufficiently similar** to those of the present application under examination which deals with the semiconductor arts. Accordingly, the arguments presented above for the inappropriateness of relying on *In re Dailey* applies equally to relying on *In re Woodruff*, and therefore, as demonstrated previously, the reliance is inappropriate and the obviousness rejection fails.

Moreover, even if the reliance on *In re Dailey* is appropriate, Applicant presents an exemplary criticality or advantage (functional difference) which results from the recited limitation of claim 51 at, for example, page 7 of the originally-filed application. That is, the recited limitation of claim 51 does produce a

functional difference, and therefore, pursuant to the rationale for citing to *In re Woodruff*, the recited limitation **is not** obvious and claim 51 is allowable. Consequently, for all the above stated reasons, the reliance on the proposed case law to overcome deficiencies in the teachings of Ueno is inappropriate, and therefore, the obviousness rejection fails. For at least this reason, claim 51 is allowable over Ueno.

Additionally, claim 51 is amended to recite each conductive line comprises a pitch relative to an adjacent conductive line wherein the pitches are equal. No new matter is added as the originally-filed application supports the amendment language at, for example, page 7 and Fig. 2. Ueno fails to teach or suggest any pitch relationship between conductive lines. Accordingly, Ueno fails to teach or suggest a positively recited limitation of claim 51, and therefore, claim 51 is allowable over Ueno.

Regarding the obviousness rejection against claim 51 based on the combination of Kawamura and Wolf, the combination of art fails to teach or suggest any pitch relationship between conductive lines. Accordingly, the combination of art fails to teach or suggest a positively recited limitation of claim 51, and therefore, claim 51 is allowable over the combination of Kawamura and Wolf.

Regarding the obviousness rejection against claim 51 based on the combination of Yen and Wolf, the combination of art fails to teach or suggest any pitch relationship between conductive lines. Accordingly, the combination of

art fails to teach or suggest a positively recited limitation of claim 51, and therefore, claim 51 is allowable over the combination of Yen and Wolf.

For all the above stated reasons, claim 51 is allowable. Applicant respectfully requests allowance of claim 51 in the next office action.

Claims 52-54 and 63-65 depend from independent claim 51, and therefore, are allowable for the reasons discussed above with respect to the independent claim, as well as for their own recited features which are not shown or taught by the art of record.

Regarding the obviousness rejection against claim 55 based on the combination of Yen and Wolf, such claim is amended to recite a conductive line comprising an entirety of a lateral width directly over a diffusion region. No new matter is added as the originally-filed application supports the amendment language at, for example, Fig. 2. Yen teaches a polysilicon gate 74 which extends partially over and laterally outward of a diffusion region 70 (col. 3, lines 57-61; Figs. 3A-3B). Accordingly, Yen, singularly or in any combination, fails to teach or suggest a conductive line comprising an entirety of a lateral width directly over a diffusion region as recited in claim 55. Since the combination of art fails to teach a positively recited limitation of claim 55, such claim is allowable. Applicant respectfully requests allowance of claim 55 in the next office action.

Claims 56-58 and 66-68 depend from independent claim 55, and therefore, are allowable for the reasons discussed above with respect to the independent

claim, as well as for their own recited features which are not taught or shown by the art of record.

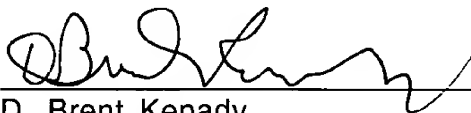
Regarding the §103 rejection against claim 59 based on the combination of Ueno and Wolf, and alternatively, the §103 rejection based on the combination of Kawamura and Wolf, such claim is now amended to include the limitations of objected to claim 61. Accordingly, claim 59 is now allowable, and Applicant respectfully requests allowance of claim 59 in the next office action.

Claims 62 and 69-71 depend from independent claim 59, and therefore, are allowable for the reasons discussed above with respect to the independent claim, as well as for their own recited features which are not taught or shown of the art of record.

This application is now believed to be in immediate condition for allowance, and action to that end is respectfully requested. If the Examiner's next anticipated action is to be anything other than a Notice of Allowance, the undersigned respectfully requests a telephone interview prior to issuance of any such subsequent action.

Respectfully submitted,

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Inventor Robert Kerr
Assignee Micron Technology, Inc.
Group Art Unit 2814
Examiner Phat X Cao
Attorney's Docket No. MI22-1343
Title: Methods of Forming Contacts, Methods of Contacting Lines, Methods of
Operating Integrated Circuitry and Integrated Circuits

VERSION WITH MARKINGS TO SHOW CHANGES MADE ACCOMPANYING
RESPONSE TO JULY 3, 2002 OFFICE ACTION

In the Claims

The claims have been amended as follows. Underlines indicate insertions
and ~~strikeouts~~ indicate deletions.

Claims 60-61 are cancelled. New claims 63-71 are added.

51. (Amended) An integrated circuit comprising:
a semiconductive substrate;
a plurality of diffusion ~~region~~ regions formed within the substrate, the diffusion ~~region~~ regions and substrate forming ~~a junction~~ junctions;

a plurality of conductive ~~line~~ lines formed over the substrate and respective diffusion ~~region~~ regions, the conductive ~~line~~ lines having a generally uniform lateral width, and a portion of the conductive ~~line~~ lines over the respective diffusion ~~region~~ regions comprising an entirety of the lateral width of the conductive ~~line~~ lines received directly over the respective diffusion ~~region~~ regions, each conductive line comprising a pitch relative to an adjacent conductive line wherein the pitches are equal; and

wherein the ~~junction~~ junctions ~~is~~ are configured to be reverse biased to preclude electrical shorting between the conductive ~~line~~ lines and the substrate for selected magnitudes of current provided through the conductive ~~line~~ lines.

52. (Amended) The integrated circuit of claim 51 wherein ~~the~~ each diffusion region comprises a portion disposed outwardly from directly beneath ~~the~~ respective conductive ~~line~~ lines.

53. (Amended) The integrated circuit of claim 51 wherein ~~the~~ each diffusion region comprises two portions disposed outwardly from directly beneath ~~the~~ respective conductive ~~line~~ lines.

54. (Amended) The integrated circuit of claim 51 wherein ~~the~~ each diffusion region comprises two portions disposed outwardly from directly beneath ~~the~~ the respective conductive ~~line~~ lines, a first portion outward of a first side of the conductive line and a second portion outward of a second side of the conductive line.

55. (Amended) An integrated circuit comprising:

- a semiconductive substrate;
- a diffusion region formed within the substrate, the diffusion region and substrate forming a junction;
- a conductive line formed over the substrate and the diffusion region, the conductive line comprising an entirety of a lateral width directly over the diffusion region;
- a conductive material interconnecting the conductive line and the diffusion region, an entirety of the conductive material received directly over the diffusion region; and
- wherein the diffusion region is configured to be reverse biased to preclude electrical shorting between the conductive line and the substrate through the conductive material for selected magnitudes of current provided through the conductive line.

59. (Amended) An integrated circuit comprising:

- a semiconductive substrate;
- a diffusion region formed within the substrate, the diffusion region and substrate forming a junction;
- a conductive line formed over the substrate and the diffusion region;
- a conductive material interconnecting the conductive line and the diffusion region, a portion of the conductive material received directly over the conductive line, and an entirety of the portion of the conductive material received directly over the diffusion region; and

wherein the diffusion region is configured to be reverse biased to preclude electrical shorting between the conductive line and the substrate through the conductive material for selected magnitudes of current provided through the conductive line; and

wherein the diffusion region comprises at least two portions disposed outwardly from directly beneath the combined cross-sectional area of the conductive material and the conductive line.

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